

CLAIMS

1. A navigation system comprising:
 - a display for displaying an area of a map;
 - a component that receives speed information relating to movement of a vehicle; and
 - a navigation component that modifies a scale of the map display area as a function of the speed information.
2. The system of claim 1, the display is a graphical user interface within the vehicle.
3. The system of claim 1, the speed information is based at least in part on force exerted on an accelerator.
4. The system of claim 1, the speed information is based at least in part on speedometer information.
5. The system of claim 1, the speed information is based at least in part on odometer information comprising distance traveled over a period of time.
6. The system of claim 1, the scale of the map display area is inversely proportional to the speed of the vehicle.
7. The system of claim 6, the product of the speed of the vehicle and the scale of the map display area are equal to a constant.
8. The system of claim 1, the navigation component modifies the scale of the map display area as an exponential function of the speed information.
9. The system of claim 1, the navigation component modifies the scale of the map display area as a linear function of the speed information.

10. The system of claim 1, the rate at which the scale of the map display area is modified is a function of a rate of change of the speed information.

11. The system of claim 1, the map is at least one of a road map, a topographical map, and an aerial map.

12. A method for automatically zooming a map area display comprising:
displaying a map area to a user in a vehicle;
selectively indicating position of the vehicle on the map area display;
determining speed information related to movement of the vehicle; and
modifying scale of the map area display as a function of the speed information of the vehicle.

13. The method of claim 12, further comprising modifying the scale of the map area display as a function of intervals of speeds of the vehicle.

14. The method of claim 13, the scale of the map area display is modified when the speed of the vehicle crosses an interval boundary.

15. The method of claim 12, further comprising modifying the scale of the map area display at a rate that is dependent on the rate of change of the speed information.

16. The method of claim 15, the rate at which the scale of the map area display is modified has a maximum limit.

17. The method of claim 12, further comprising determining a base scale at which to display the map area.

18. The method of claim 17, further comprising increasing or decreasing the scale of the map display area from the base scale as a function of the speed information of the vehicle.

19. The method of claim 12, further comprising positioning the vehicle at the center of the map display area while displaying the map area to the user in the vehicle.

20. The method of claim 12, the scale of the map area display is equal to a constant divided by the speed of the vehicle.

21. The method of claim 20, the scale of the map area display and the speed of the vehicle are linearly related.

22. The method of claim 20, the scale of the map area display and the speed of the vehicle are exponentially related.

23. The method of claim 12, further comprising selectively modifying the scale of the map area display as a function of the complexity of the map, the scale of the map area display is directly proportional to the complexity of the map

24. A method for automatically zooming map area display scale, comprising;
means for displaying a map to a user in a vehicle;
means for determining speed information related to the vehicle; and
means for adjusting scale of the map based at least in part on speed information related to the vehicle.

25. The method of claim 24, further comprising means for selectively indicating the position the vehicle on the map area display.

26. The method of claim 24, the product of the scale of the map area display and the speed of the vehicle equals a constant.